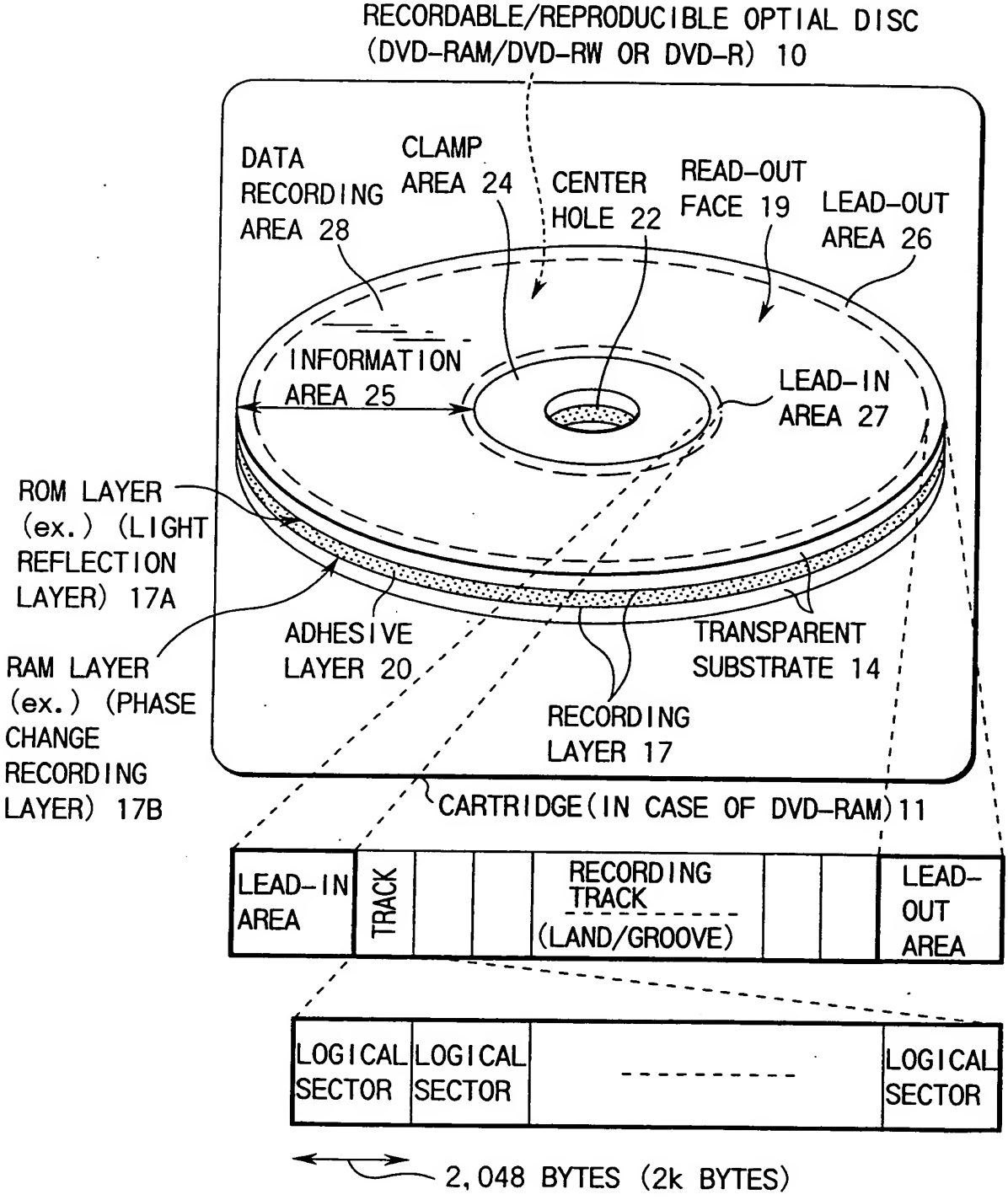
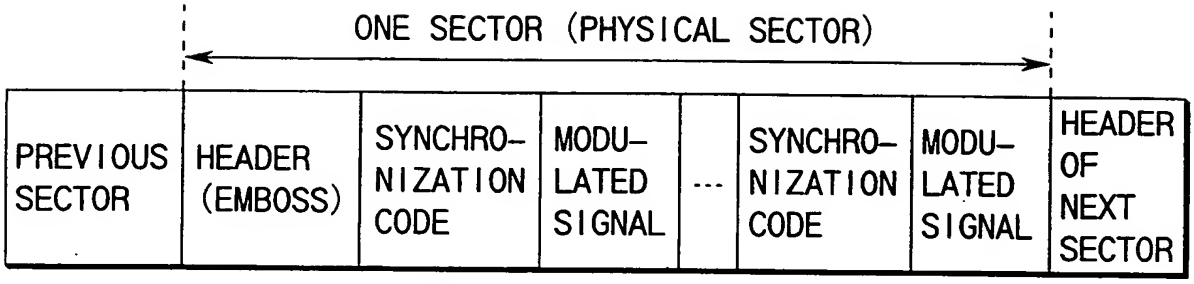

RECORDABLE/REPRODUCIBLE OPTIAL DISC
(DVD-RAM/DVD-RW OR DVD-R) 10
DATA RECORDING AREA 28
CLAMP AREA 24
CENTER HOLE 22
READ-OUT FACE 19
LEAD-OUT AREA 26
INFORMATION AREA 25
LEAD-IN AREA 27
ROM LAYER (ex.) (LIGHT REFLECTION LAYER) 17A
RAM LAYER (ex.) (PHASE CHANGE RECORDING LAYER) 17B
ADHESIVE LAYER 20
TRANSPARENT SUBSTRATE 14
RECORDING LAYER 17
CARTRIDGE(IN CASE OF DVD-RAM) 11
LEAD-IN AREA
TRACK
RECORDING TRACK
(LAND/GROOVE)
LEAD-OUT AREA
LOGICAL SECTOR
LOGICAL SECTOR
LOGICAL SECTOR
2,048 BYTES (2k BYTES)

FIG. 1


ONE SECTOR (PHYSICAL SECTOR)
PREVIOUS SECTOR
HEADER (EMBOSS)
SYNCHRO-NIZATION CODE
MODU-LATED SIGNAL

SYNCHRO-NIZATION CODE
MODU-LATED SIGNAL
HEADER OF NEXT SECTOR

FIG. 2

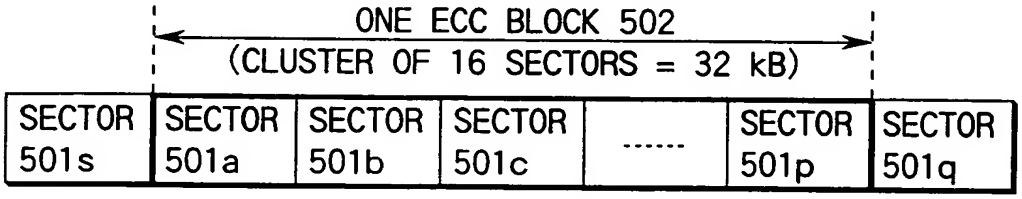

ONE ECC BLOCK 502
(CLUSTER OF 16 SECTORS = 32 kB)
SECTOR 501s
SECTOR 501a
SECTOR 501b
SECTOR 501c
.....
SECTOR 501p
SECTOR 501q

FIG. 3

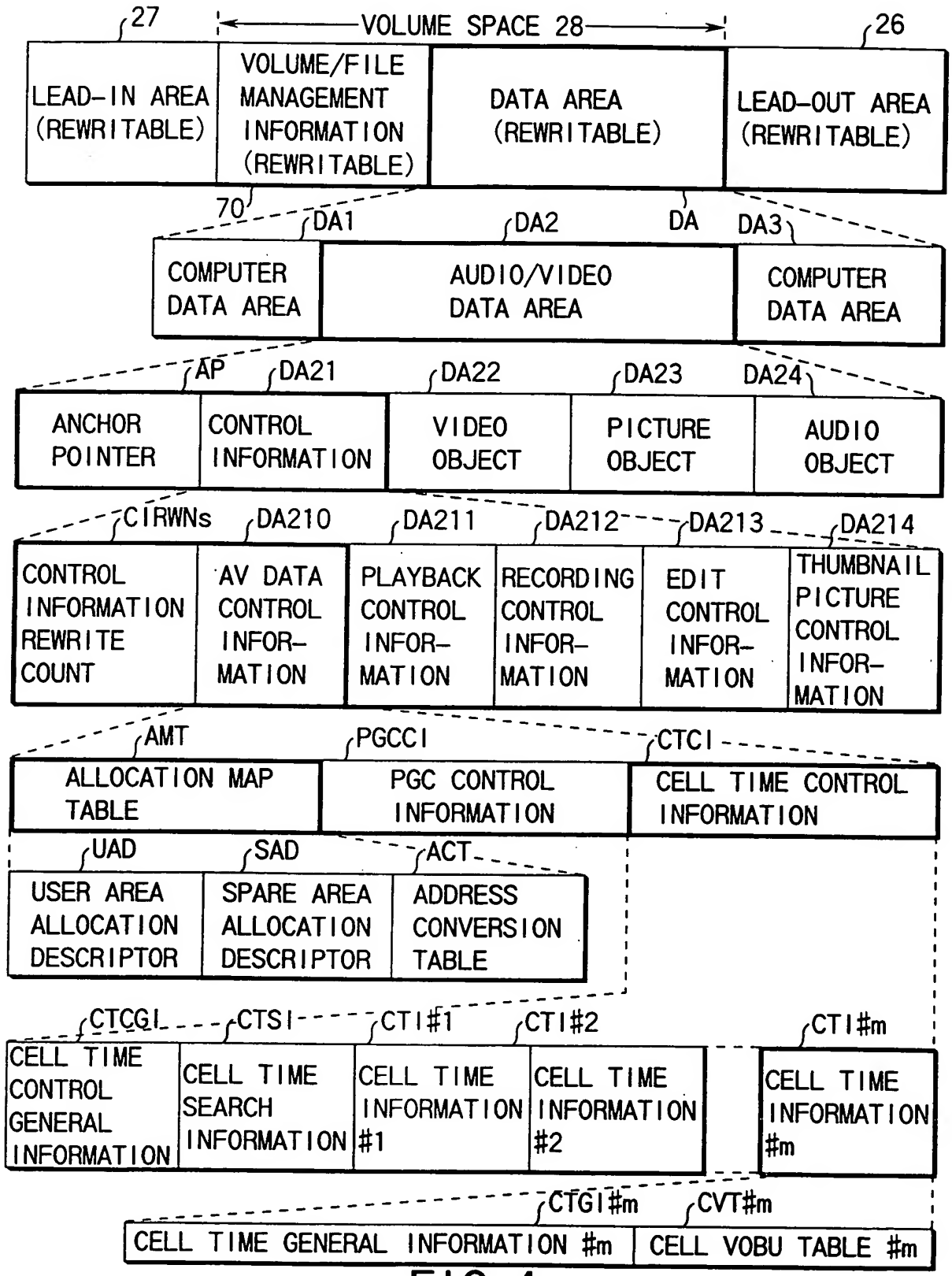

27
VOLUME SPACE 28
26
LEAD-IN AREA (REWRITABLE)
VOLUME/FILE MANAGEMENT INFORMATION (REWRITABLE)
DATA AREA (REWRITABLE)
LEAD-OUT AREA (REWRITABLE)
70
DA1
DA2
DA
DA3
COMPUTER DATA AREA
AUDIO/VIDEO DATA AREA
COMPUTER DATA AREA
AP
DA21
DA22
DA23
DA24
ANCHOR POINTER
CONTROL INFORMATION
VIDEO OBJECT
PICTURE OBJECT
AUDIO OBJECT
CIRWNs
DA210
DA211
DA212
DA213
DA214
CONTROL INFORMATION REWRITE COUNT
AV DATA CONTROL INFOR-MATION
PLAYBACK CONTROL INFOR-MATION
RECORDING CONTROL INFOR-MATION
EDIT CONTROL INFOR-MATION
THUMBNAIL PICTURE CONTROL INFOR-MATION
AMT
PGCCI
CTCI
ALLOCATION MAP TABLE
PGC CONTROL INFORMATION
CELL TIME CONTROL INFORMATION
UAD
SAD
ACT
USER AREA ALLOCATION DESCRIPTOR
SPARE AREA ALLOCATION DESCRIPTOR
ADDRESS CONVERSION TABLE
CTCGI
CTSI
CTI#1
CTI#2
CTI#m
CELL TIME CONTROL GENERAL INFORMATION
CELL TIME SEARCH INFORMATION
CELL TIME INFORMATION #1
CELL TIME INFORMATION #2
CELL TIME INFORMATION #m
CTGI#m
CVT#m
CELL TIME GENERAL INFORMATION #m
CELL VOBU TABLE #m

FIG. 4

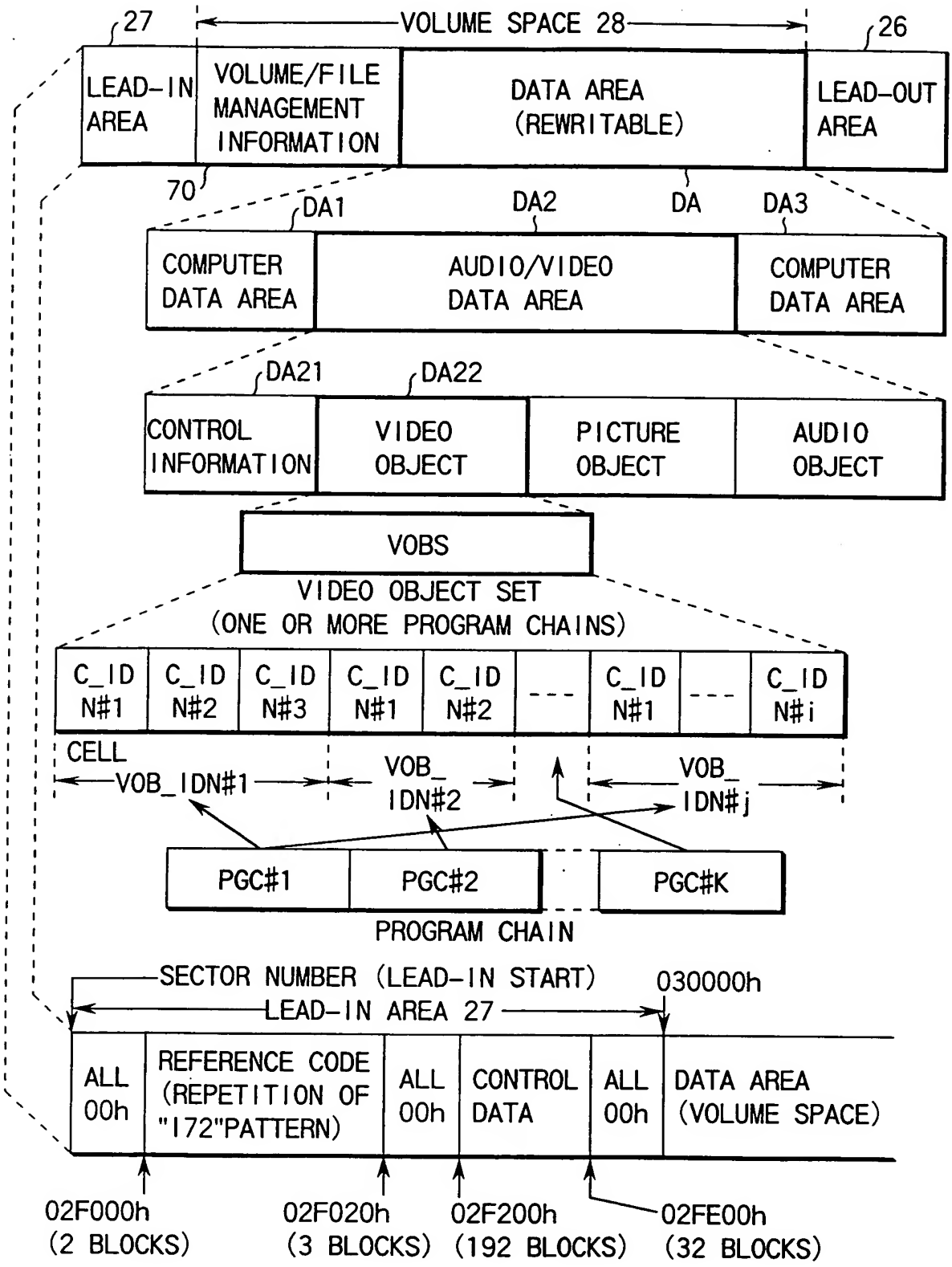

27
VOLUME SPACE 28
26
LEAD-IN AREA
VOLUME/FILE MANAGEMENT INFORMATION
DATA AREA (REWRITABLE)
LEAD-OUT AREA
70
DA1
DA2
DA
DA3
COMPUTER DATA AREA
AUDIO/VIDEO DATA AREA
COMPUTER DATA AREA
DA21
DA22
CONTROL INFORMATION
VIDEO OBJECT
PICTURE OBJECT
AUDIO OBJECT
VOBS
VIDEO OBJECT SET
(ONE OR MORE PROGRAM CHAINS)
C_ID N#1
C_ID N#2
C_ID N#3
C_ID N#1
C_ID N#2
C_ID N#1
C_ID N#i
CELL
VOB_IDN#1
VOB_ IDN#2
VOB_ IDN#j
PGC#1
PGC#2
PGC#K
PROGRAM CHAIN
SECTOR NUMBER (LEAD-IN START)
030000h
LEAD-IN AREA 27
ALL 00h
REFERENCE CODE (REPETITION OF "172"PATTERN)
ALL 00h
CONTROL DATA
ALL 00h
DATA AREA (VOLUME SPACE)
02F000h (2 BLOCKS)
02F020h (3 BLOCKS)
02F200h (192 BLOCKS)
02FE00h (32 BLOCKS)

FIG. 5

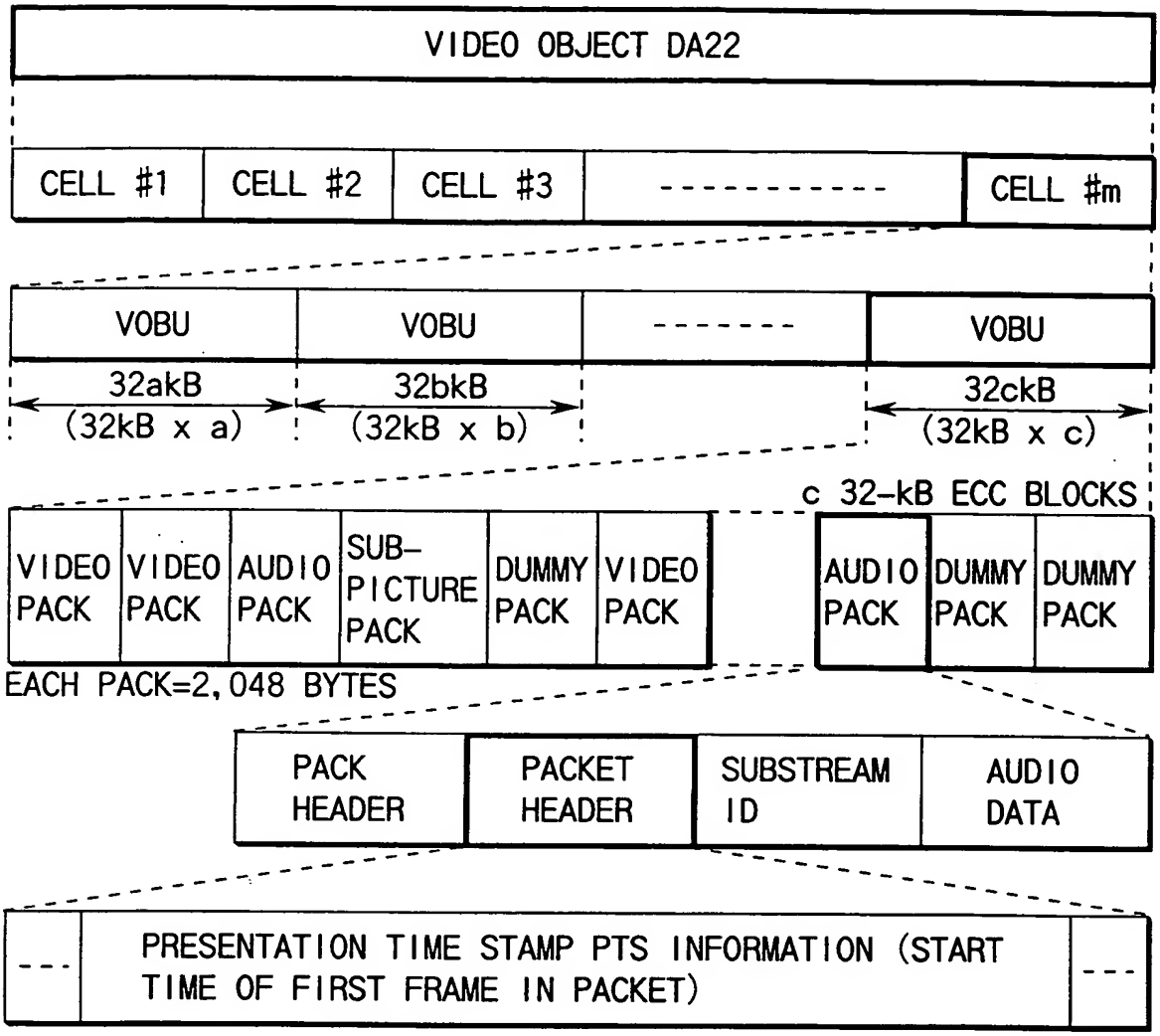

VIDEO OBJECT DA22
CELL #1
CELL #2
CELL #3
CELL #m
VOBU
VOBU
VOBU
32akB
(32kB x a)
32bkB
(32kB x b)
32ckB
(32kB x c)
c 32-kB ECC BLOCKS
VIDEO PACK
VIDEO PACK
AUDIO PACK
SUB-PICTURE PACK
DUMMY PACK
VIDEO PACK
AUDIO PACK
DUMMY PACK
DUMMY PACK
EACH PACK=2,048 BYTES
PACK HEADER
PACKET HEADER
SUBSTREAM ID
AUDIO DATA
PRESENTATION TIME STAMP PTS INFORMATION (START TIME OF FIRST FRAME IN PACKET)

FIG. 6

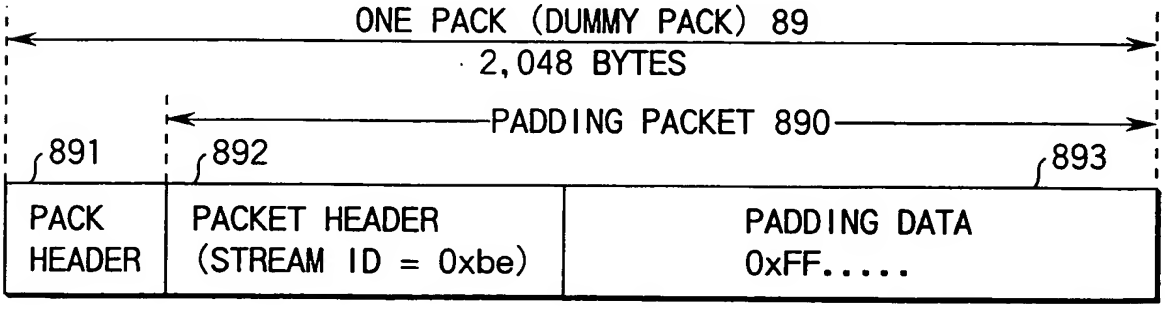
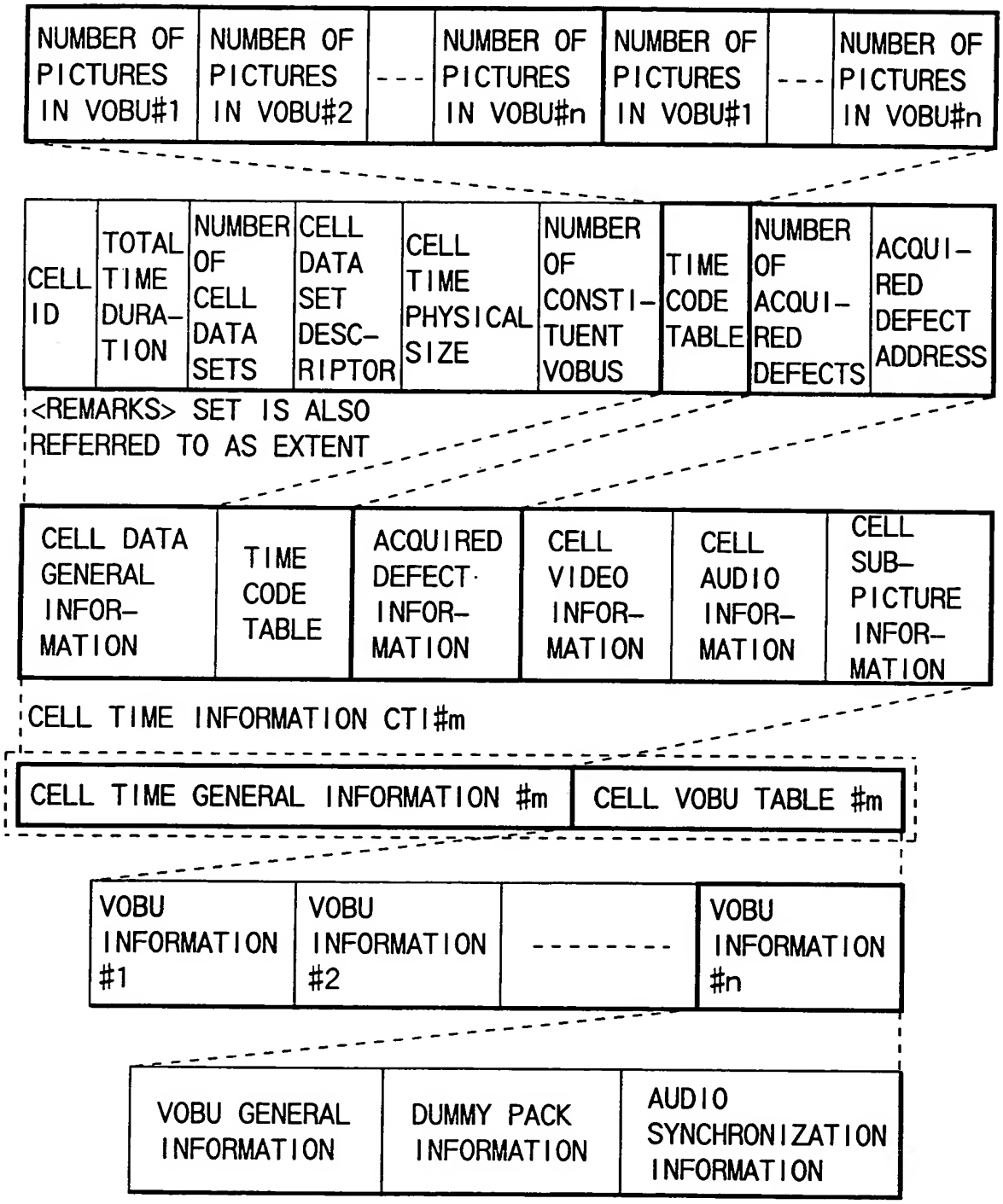

ONE PACK (DUMMY PACK) 89
2,048 BYTES
PADDING PACKET 890
891
892
893
PACK HEADER
PACKET HEADER (STREAM ID = 0xbe)
PADDING DATA 0xFF.....

FIG. 7


NUMBER OF PICTURES IN VOBU#1
NUMBER OF PICTURES IN VOBU#2

NUMBER OF PICTURES IN VOBU#n
NUMBER OF PICTURES IN VOBU#1

NUMBER OF PICTURES IN VOBU#n
CELL ID
TOTAL TIME DURA-TION
NUMBER OF CELL DATA SETS
CELL DATA SET DESC-RIPTOR
CELL TIME PHYSICAL SIZE
NUMBER OF CONSTI-TUENT VOBUS
TIME CODE TABLE
NUMBER OF ACQUI-RED DEFECTS
ACQUI-RED DEFECT ADDRESS
<REMARKS> SET IS ALSO REFERRED TO AS EXTENT
CELL DATA GENERAL INFOR-MATION
TIME CODE TABLE
ACQUIRED DEFECT INFOR-MATION
CELL VIDEO INFOR-MATION
CELL AUDIO INFOR-MATION
CELL SUB-PICTURE INFOR-MATION
CELL TIME INFORMATION CTI#m
CELL TIME GENERAL INFORMATION #m
CELL VOBU TABLE #m
VOBU INFORMATION #1
VOBU INFORMATION #2

VOBU INFORMATION #n
VOBU GENERAL INFORMATION
DUMMY PACK INFORMATION
AUDIO SYNCHRONIZATION INFORMATION

FIG. 8

CORRESPONDING INFORMATION	INFORMATION NAME	INFORMATION CONTENTS	NUMBER OF BYTES USED
VOBU GENERAL INFORMATION	I-PICTURE END POSITION	DIFFERENTIAL ADDRESS VALUE OF I-PICTURE END POSITION FROM VOBU START POSITION	1
DUMMY PACK INFORMATION	NUMBER OF DUMMY PACKS	NUMBER OF DUMMY PACKS IN VOBU	1
	DUMMY PACKS DISTRIBUTION	DUMMY PACK INSERTION DIFFERENTIAL ADDRESS FROM START OF VOBU, AND EACH NUMBER OF DUMMY PACKS (2 BYTES EACH)	2 x DUMMY PACK NUMBER
AUDIO SYNCHRONIZATION INFORMATION	AUDIO STREAM CHANNEL NUMBER	NUMBER OF CHANNELS OF AUDIO STREAM	1
	I-PICTURE AUDIO POSITION #1	DIFFERENTIAL ADDRESS VALUE OF SECTOR INCLUDING AUDIO PACK OF THE SAME TIME AS I-PICTURE START TIME FROM START OF VOBU (MSB = "0" : LOCATED BEFORE VOBU, MSB = "1" : LOCATED AFTER VOBU)	1
	I-PICTURE START AUDIO SAMPLE NUMBER #1	INDICATE SAMPLE NUMBER OF AUDIO SAMPLE POSITION OF THE SAME TIME AS I-PICTURE START TIME IN SECTOR AS COEFFICIENT OF SERIAL NUMBERS OF ALL AUDIO PACKS	2
	AUDIO SYNCHRONIZATION INFORMATION FLAG #1	PRESENCE/ABSENCE OF SYNCHRONIZATION INFORMATION BETWEEN AUDIO AND VIDEO STREAMS (NEXT ITEM IS NOT AVAILABLE IF ABSENT)	1
	AUDIO SYNCHRONIZATION DATA	THE NUMBER OF AUDIO SAMPLES INCLUDED IN VOBU	2
	I-PICTURE AUDIO POSITION #2	SAME CONTENTS AS #1	1
	I-PICTURE START AUDIO SAMPLE NUMBER #2		2
	AUDIO SYNCHRONIZATION FLAG #2		1
	AUDIO SYNCHRONIZATION DATA		2

FIG. 9

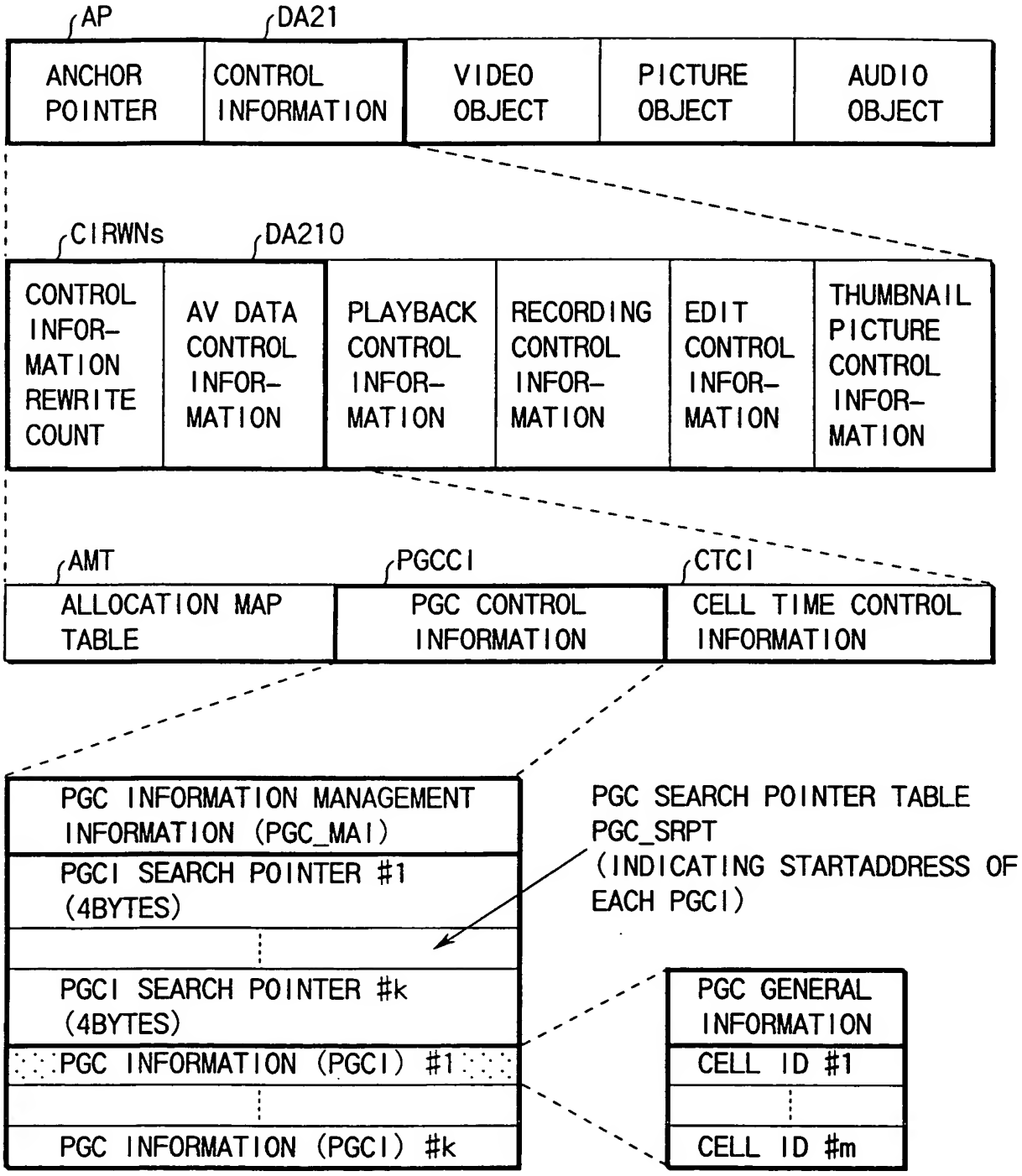

AP
DA21
ANCHOR POINTER
CONTROL INFORMATION
VIDEO OBJECT
PICTURE OBJECT
AUDIO OBJECT
CIRWNs
DA210
CONTROL INFOR-MATION REWRITE COUNT
AV DATA CONTROL INFOR-MATION
PLAYBACK CONTROL INFOR-MATION
RECORDING CONTROL INFOR-MATION
EDIT CONTROL INFOR-MATION
THUMBNAIL PICTURE CONTROL INFOR-MATION
AMT
PGCCI
CTCI
ALLOCATION MAP TABLE
PGC CONTROL INFORMATION
CELL TIME CONTROL INFORMATION
PGC INFORMATION MANAGEMENT INFORMATION (PGC_MAI)
PGCI SEARCH POINTER #1 (4BYTES)
PGCI SEARCH POINTER #k (4BYTES)
PGC INFORMATION (PGCI) #1
PGC INFORMATION (PGCI) #k
PGC SEARCH POINTER TABLE PGC_SRPT (INDICATING STARTADDRESS OF EACH PGCI)
PGC GENERAL INFORMATION
CELL ID #1
CELL ID #m

FIG. 10

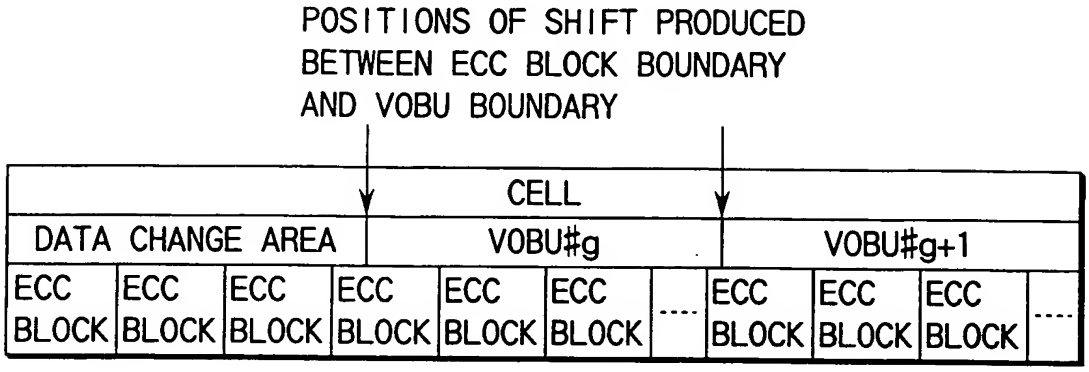

POSITIONS OF SHIFT PRODUCED
BETWEEN ECC BLOCK BOUNDARY
AND VOBU BOUNDARY
CELL
DATA CHANGE AREA
VOBU#g
VOBU#g+1
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK

FIG. 11

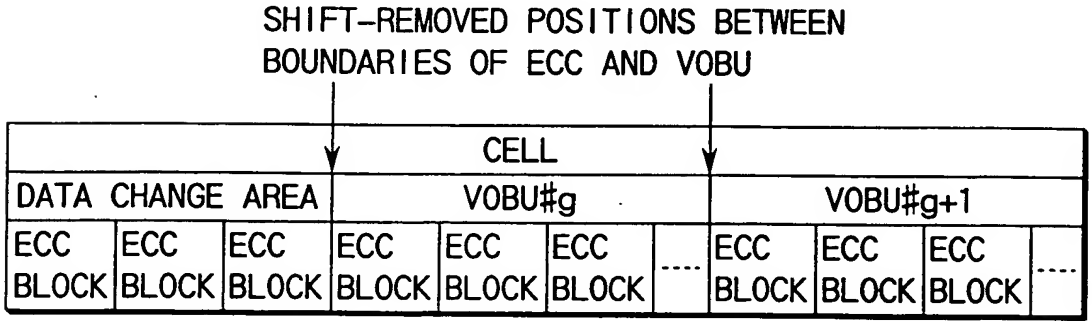

SHIFT-REMOVED POSITIONS BETWEEN
BOUNDARIES OF ECC AND VOBU
CELL
DATA CHANGE AREA
VOBU#g
VOBU#g+1
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK
ECC BLOCK

FIG. 12

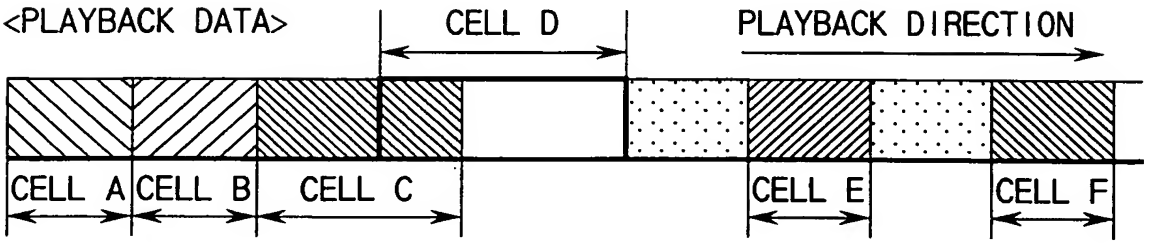


FIG. 13

PGC INFORMATION

PGC#1		PGC#2		PGC#3	
NUMBER OF CELLS = 3		NUMBER OF CELLS = 3		NUMBER OF CELLS = 5	
CELL#1	CELL A	CELL#1	CELL D	CELL#1	CELL E
CELL#2	CELL B	CELL#2	CELL E	CELL#2	CELL A
CELL#3	CELL C	CELL#3	CELL F	CELL#3	CELL D
———	———	———	———	CELL#4	CELL B
———	———	———	———	CELL#5	CELL E

FIG. 14

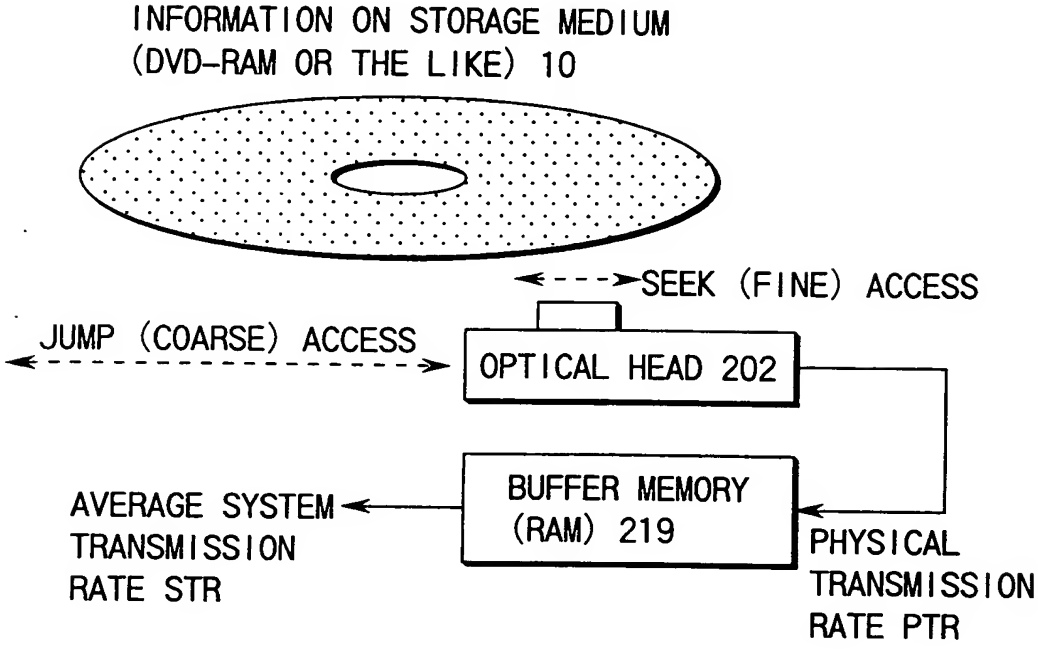

INFORMATION ON STORAGE MEDIUM
(DVD-RAM OR THE LIKE) 10
SEEK (FINE) ACCESS
JUMP (COARSE) ACCESS
OPTICAL HEAD 202
BUFFER MEMORY
(RAM) 219
AVERAGE SYSTEM
TRANSMISSION
RATE STR
PHYSICAL
TRANSMISSION
RATE PTR

FIG. 15

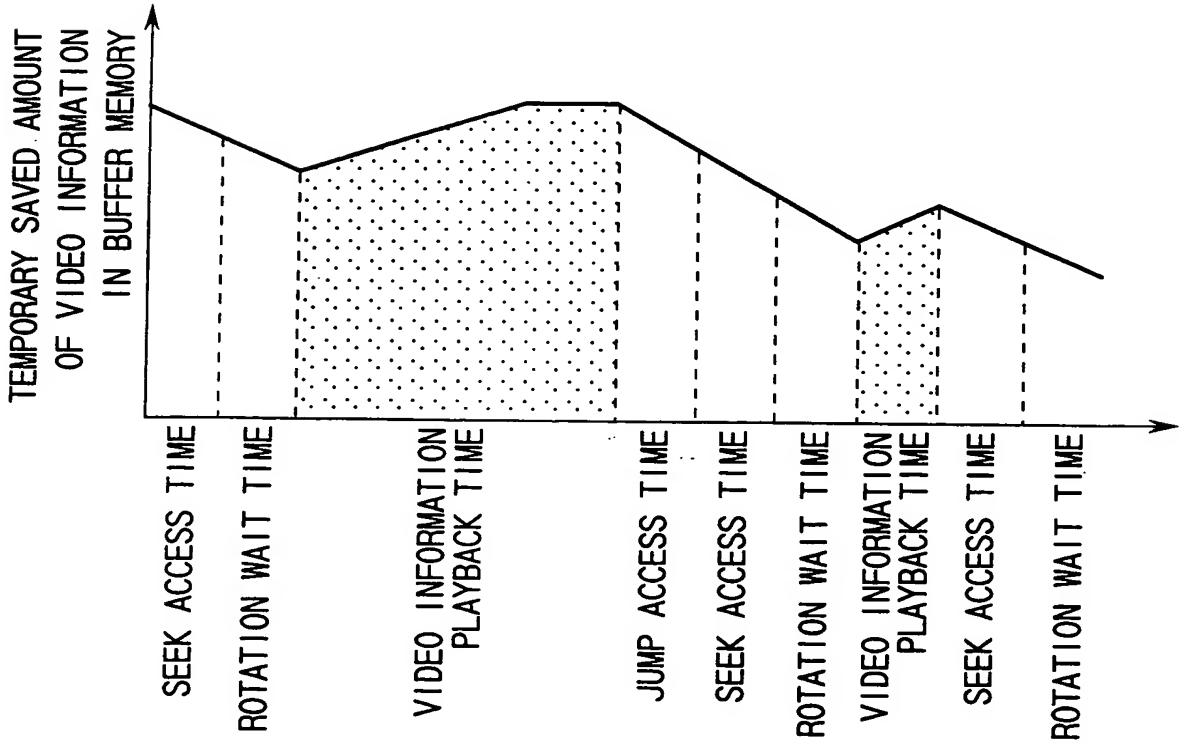

TEMPORARY SAVED AMOUNT
OF VIDEO INFORMATION
IN BUFFER MEMORY
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION
PLAYBACK TIME
JUMP ACCESS TIME
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION
PLAYBACK TIME
SEEK ACCESS TIME
ROTATION WAIT TIME

FIG. 16

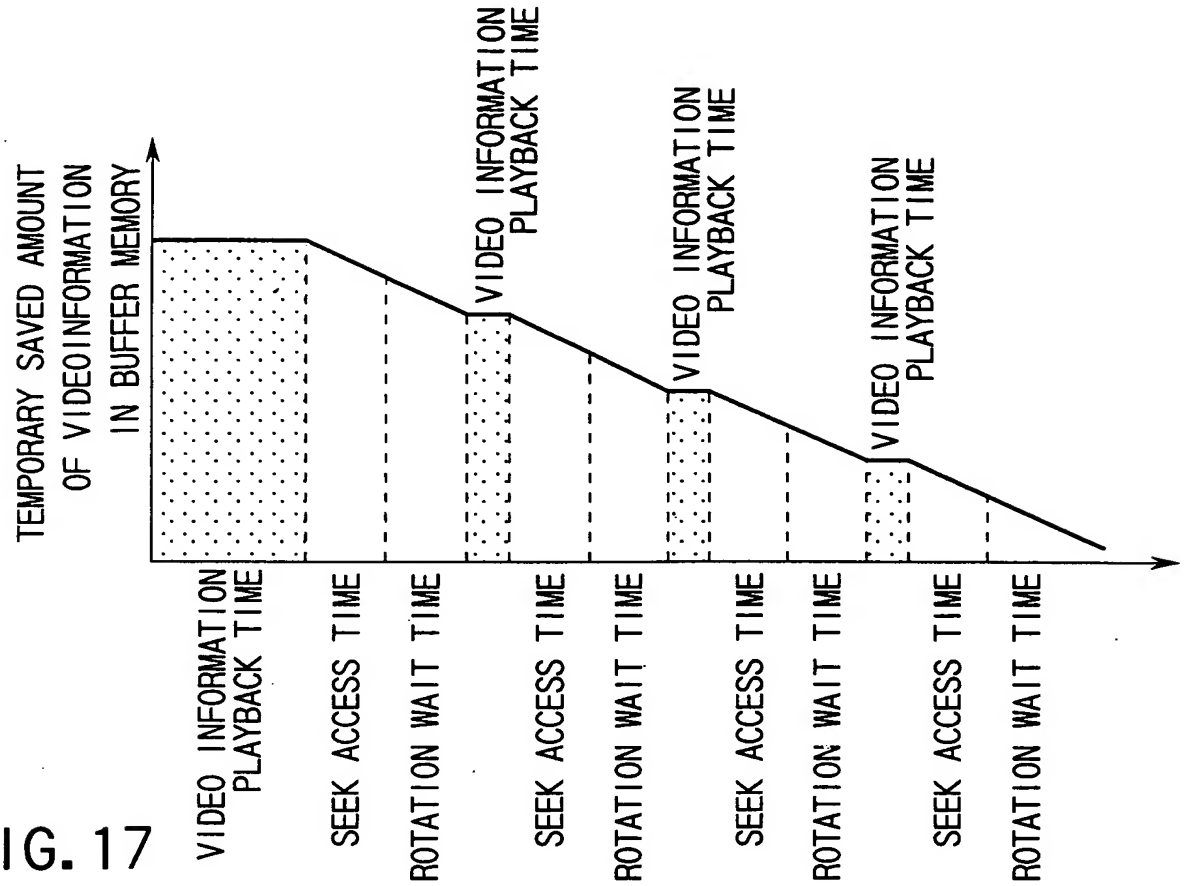

TEMPORARY SAVED AMOUNT OF VIDEOINFORMATION IN BUFFER MEMORY
VIDEO INFORMATION PLAYBACK TIME
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION PLAYBACK TIME
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION PLAYBACK TIME
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION PLAYBACK TIME
SEEK ACCESS TIME
ROTATION WAIT TIME

FIG. 17

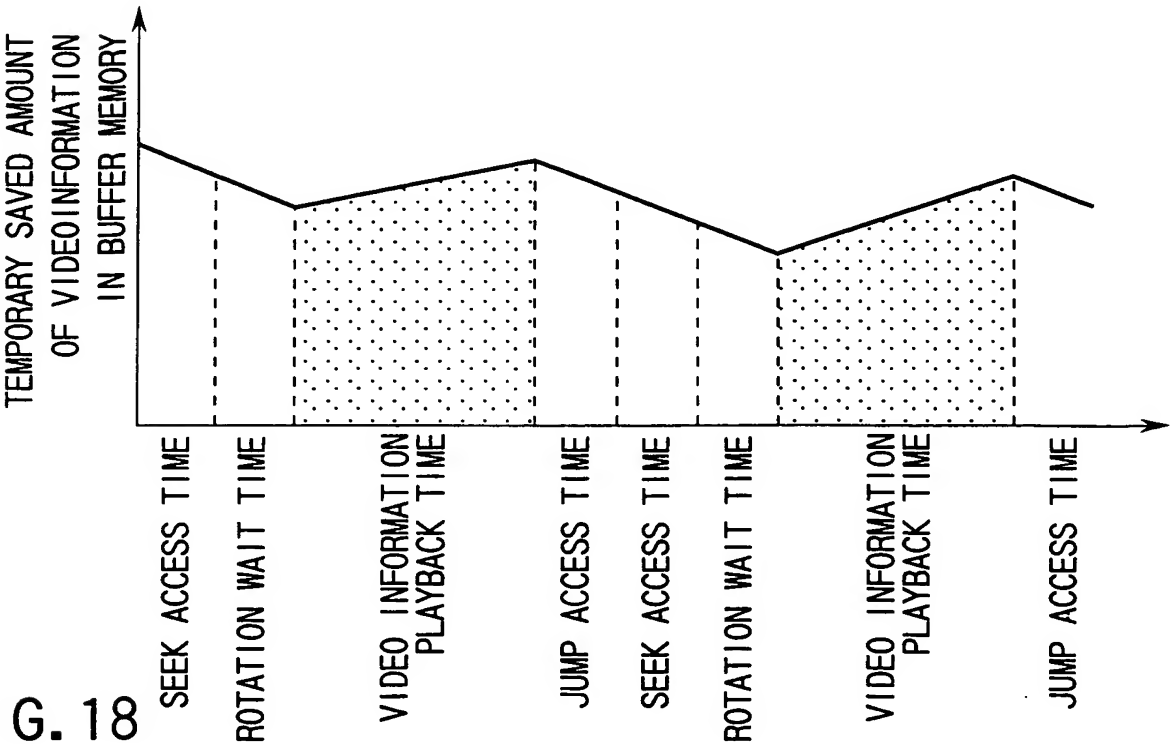

TEMPORARY SAVED AMOUNT OF VIDEOINFORMATION IN BUFFER MEMORY
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION PLAYBACK TIME
JUMP ACCESS TIME
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION PLAYBACK TIME
JUMP ACCESS TIME

FIG. 18

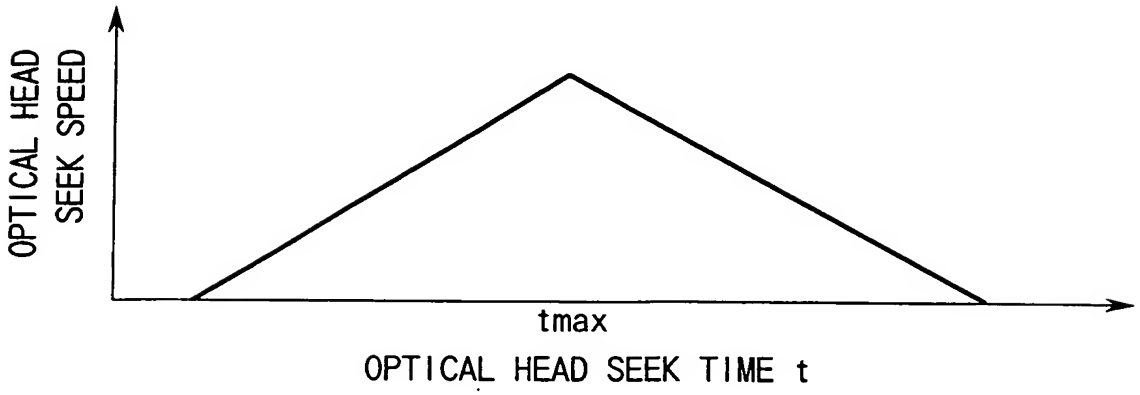


FIG. 19

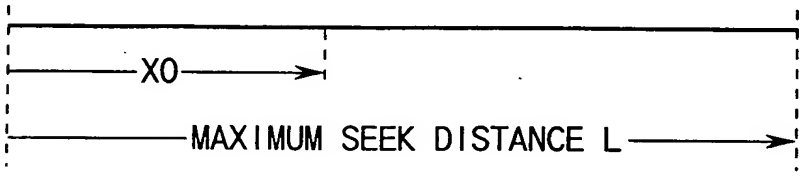


FIG. 20

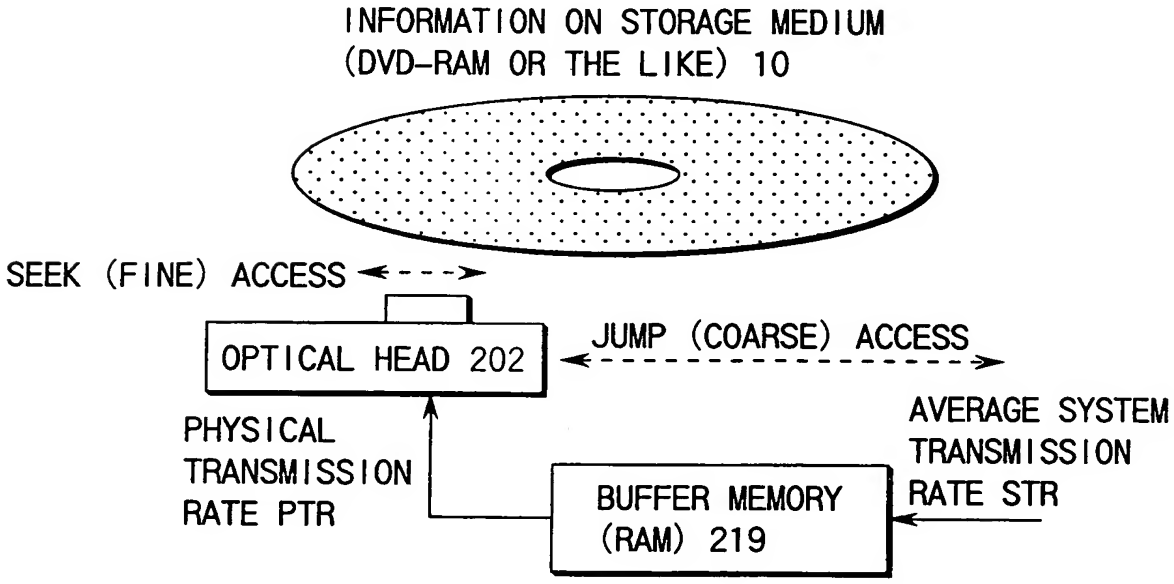


FIG. 21

FREE AREA 107	CELL #1			CELL #2				CELL #3		
	VOBU 108a	VOBU 108b	VOBU 108c	VOBU 108d	VOBU 108e	VOBU 108f	VOBU 108g	VOBU 108h	VOBU 108i	VOBU 108j

FIG. 22

FREE AREA 107	CELL #1			CELL #2A		CELL #2B		CELL #3		
	VOBU 108a	VOBU 108b	VOBU 108c	VOBU 108d	VOBU 108e	VOBU 108f	VOBU 108g	VOBU 108h	VOBU 108i	VOBU 108j

FIG. 23

CELL #2A		CELL #1				CELL #2B			CELL #3		
VOBU 108d*	VOBU 108p	VOBU 108a	VOBU 108b	VOBU 108c*		VOBU 108q	VOBU 108f	VOBU 108g	VOBU 108h	VOBU 108i	VOBU 108j

FREE AREA 106

FIG. 24

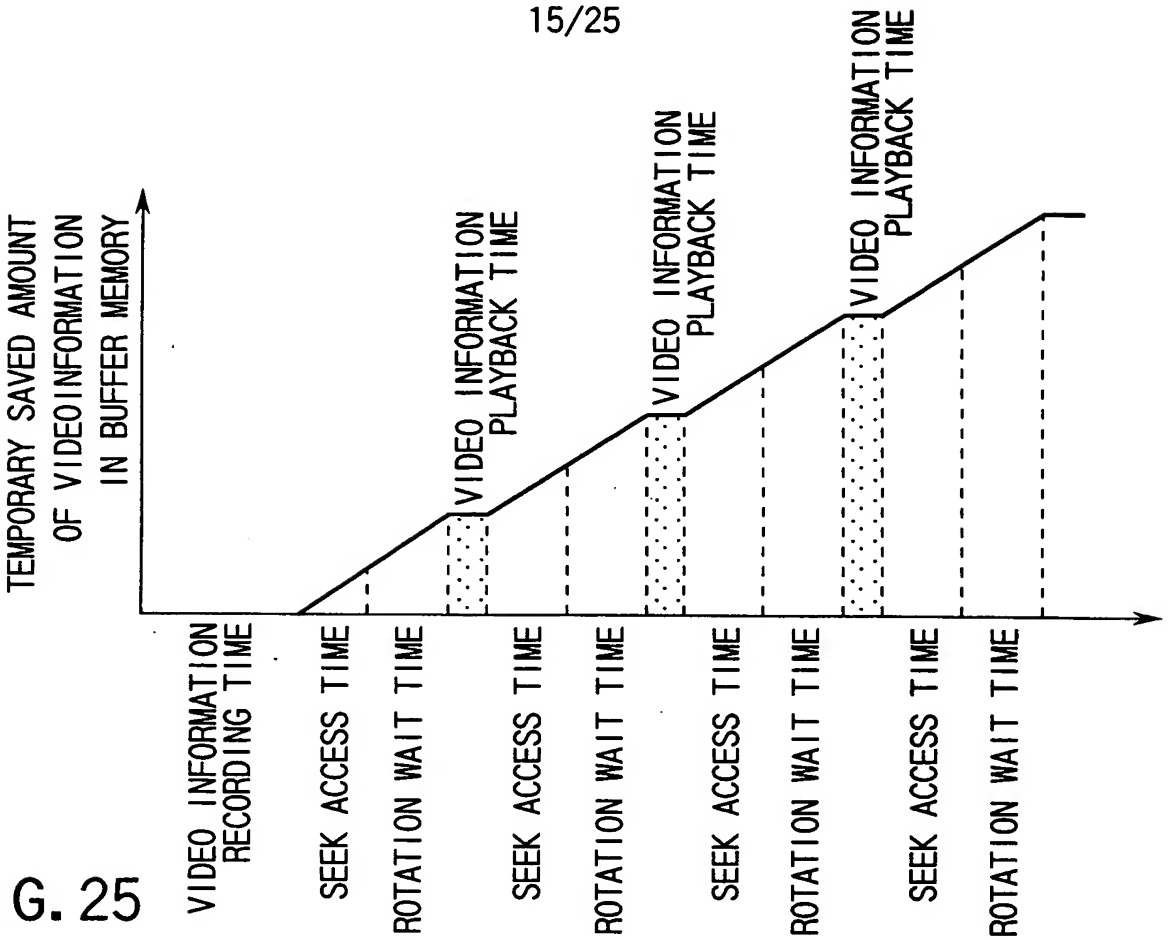

TEMPORARY SAVED AMOUNT OF VIDEOINFORMATION IN BUFFER MEMORY
VIDEO INFORMATION RECORDING TIME
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION PLAYBACK TIME
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION PLAYBACK TIME
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION PLAYBACK TIME
SEEK ACCESS TIME
ROTATION WAIT TIME

FIG. 25

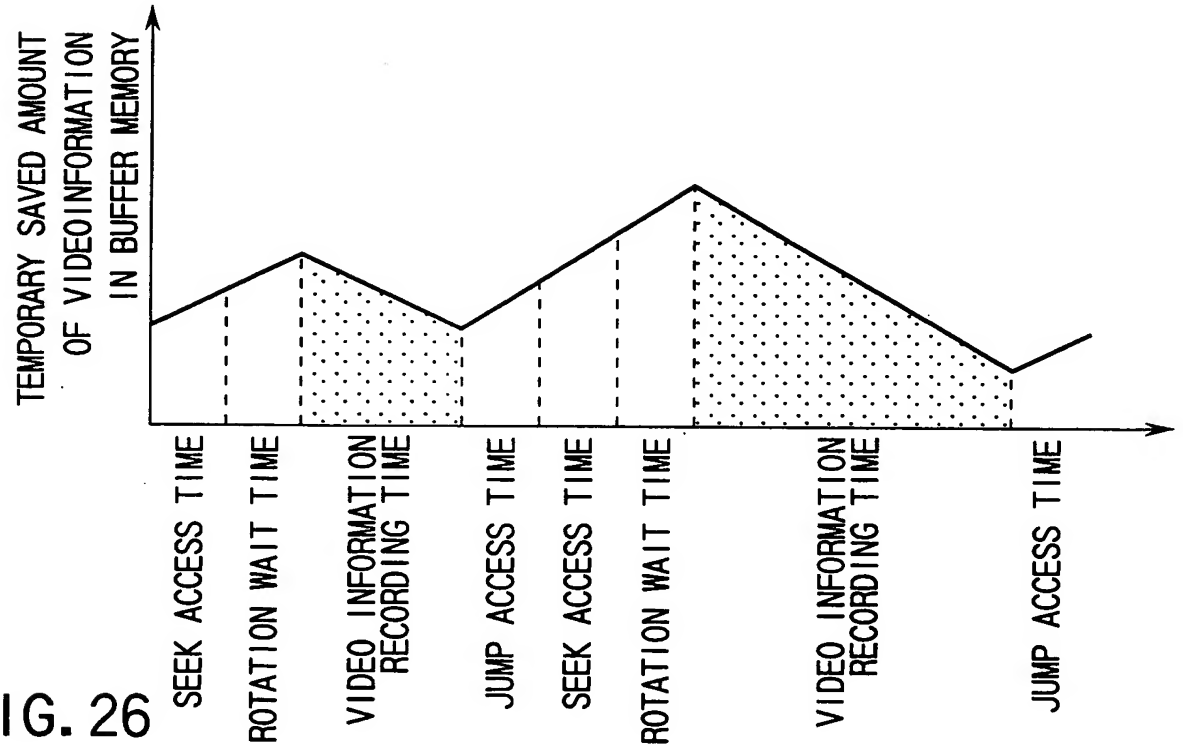

TEMPORARY SAVED AMOUNT OF VIDEOINFORMATION IN BUFFER MEMORY
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION RECORDING TIME
JUMP ACCESS TIME
SEEK ACCESS TIME
ROTATION WAIT TIME
VIDEO INFORMATION RECORDING TIME
JUMP ACCESS TIME

FIG. 26

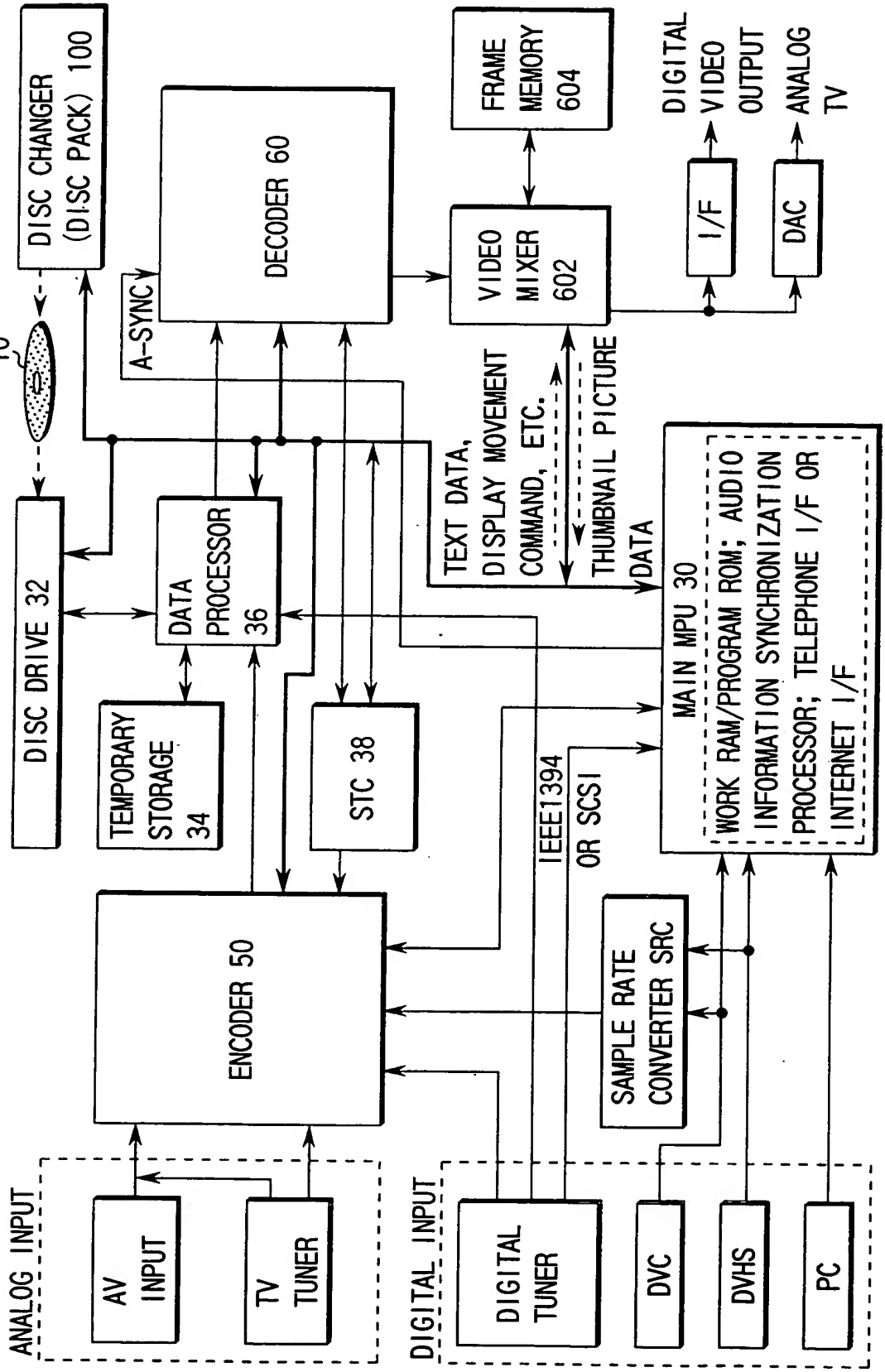

DISC CHANGER (DISC PACK) 100
DECODER 60
FRAME MEMORY 604
DIGITAL VIDEO OUTPUT
ANALOG TV
I/F
DAC
VIDEO MIXER 602
A-SYNC
10
TEXT DATA, DISPLAY MOVEMENT COMMAND, ETC.
THUMBNAIL PICTURE DATA
DISC DRIVE 32
DATA PROCESSOR 36
MAIN MPU 30
WORK RAM/PROGRAM ROM; AUDIO INFORMATION SYNCHRONIZATION PROCESSOR; TELEPHONE I/F OR INTERNET I/F
TEMPORARY STORAGE 34
STC 38
IEEE1394 OR SCSI
ENCODER 50
SAMPLE RATE CONVERTER SRC
ANALOG INPUT
AV INPUT
TV TUNER
DIGITAL INPUT
DIGITAL TUNER
DVC
DVHS
PC

FIG. 27

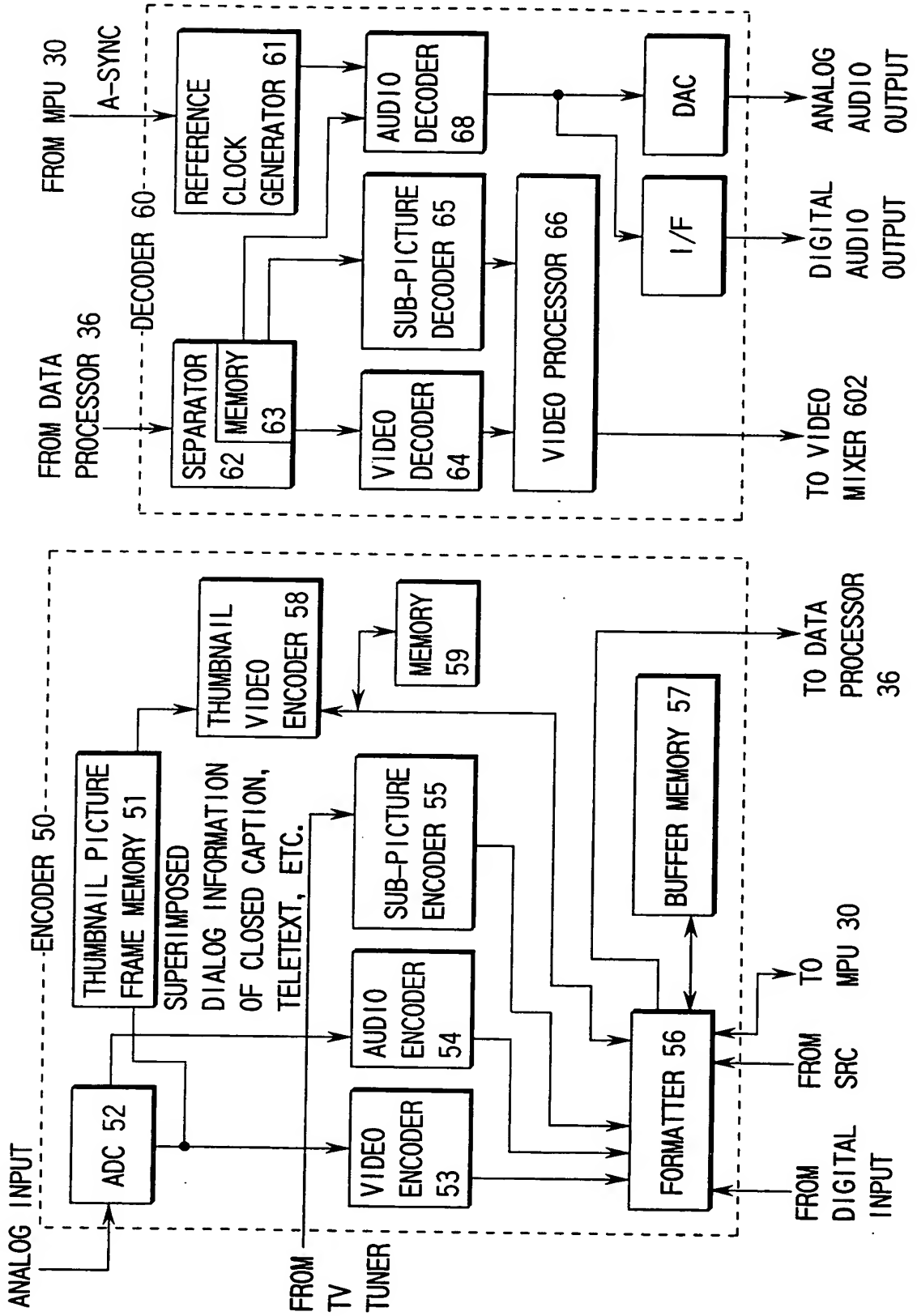

FROM MPU 30
A-SYNC
REFERENCE CLOCK GENERATOR 61
AUDIO DECODER 68
DAC
ANALOG AUDIO OUTPUT
DECODER 60
SUB-PICTURE DECODER 65
I/F
DIGITAL AUDIO OUTPUT
FROM DATA PROCESSOR 36
SEPARATOR 62
MEMORY 63
VIDEO DECODER 64
VIDEO PROCESSOR 66
TO VIDEO MIXER 602
ENCODER 50
THUMBNAIL VIDEO ENCODER 58
MEMORY 59
TO DATA PROCESSOR 36
THUMBNAIL PICTURE FRAME MEMORY 51
SUPERIMPOSED DIALOG INFORMATION OF CLOSED CAPTION, TELETEXT, ETC.
SUB-PICTURE ENCODER 55
BUFFER MEMORY 57
AUDIO ENCODER 54
FORMATTER 56
TO MPU 30
FROM SRC
ADC 52
VIDEO ENCODER 53
FROM DIGITAL INPUT
ANALOG INPUT
FROM TV TUNER

FIG. 28

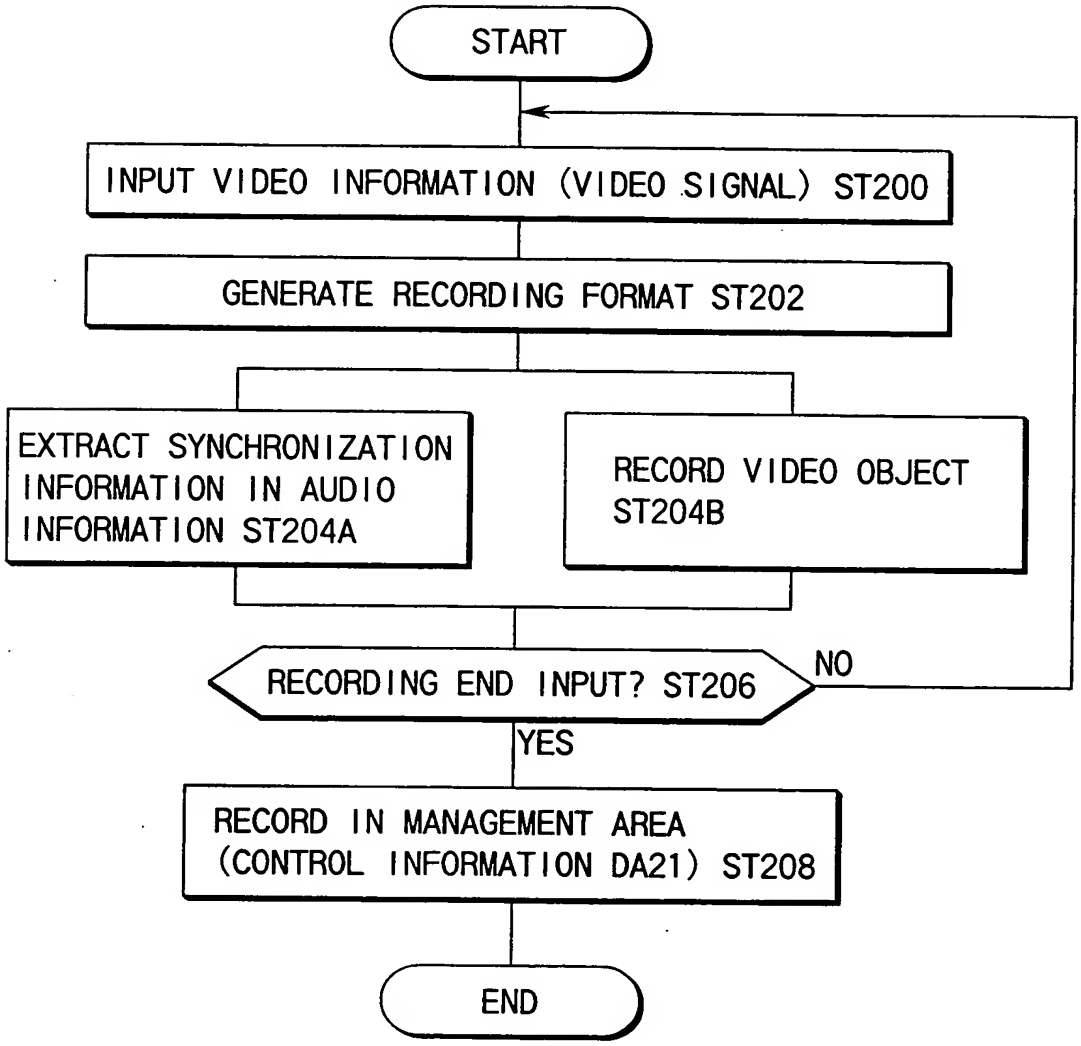

START
INPUT VIDEO INFORMATION (VIDEO SIGNAL) ST200
GENERATE RECORDING FORMAT ST202
EXTRACT SYNCHRONIZATION INFORMATION IN AUDIO INFORMATION ST204A
RECORD VIDEO OBJECT ST204B
RECORDING END INPUT? ST206
NO
YES
RECORD IN MANAGEMENT AREA (CONTROL INFORMATION DA21) ST208
END

FIG. 29

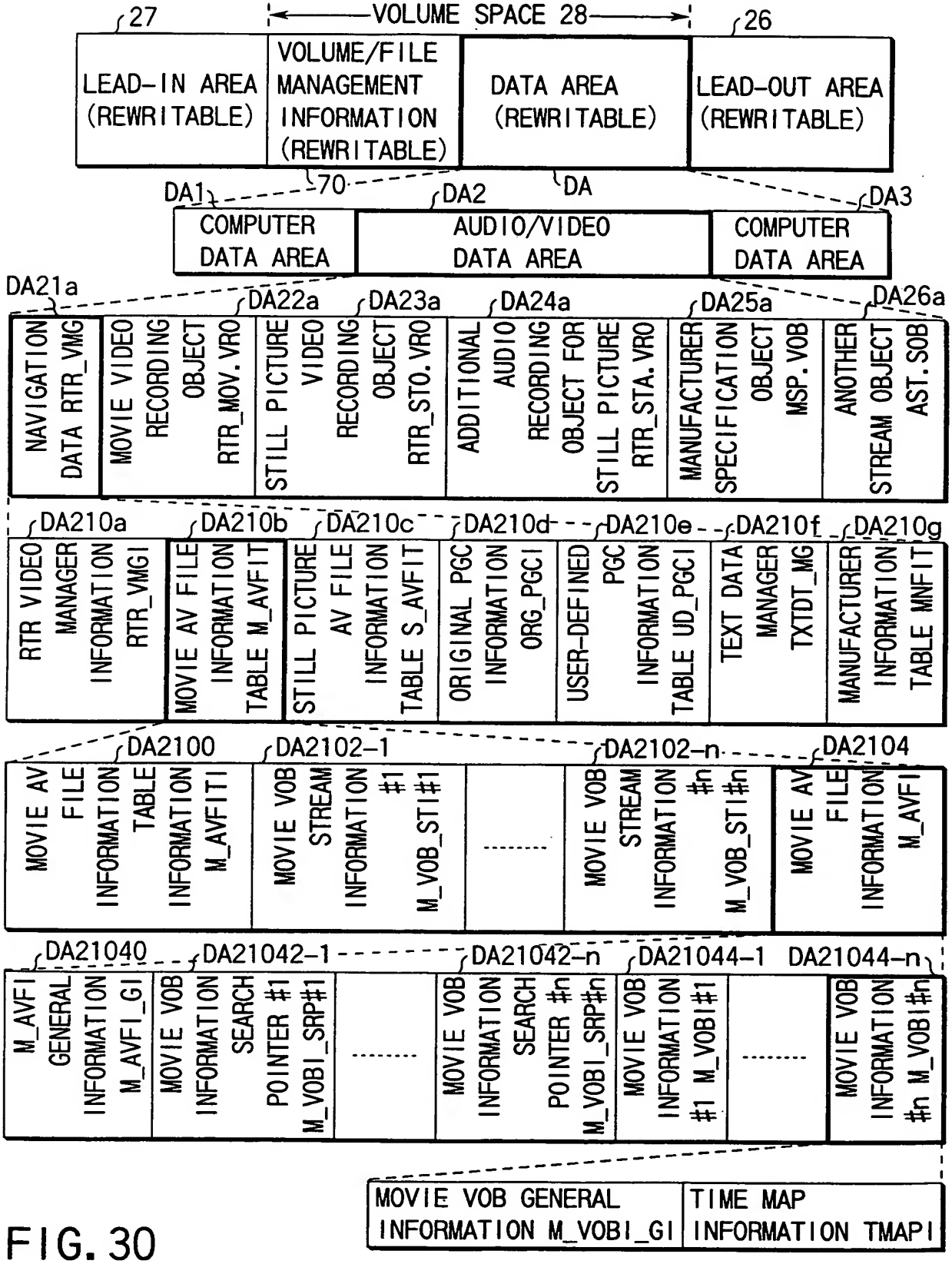

27
VOLUME SPACE 28
26
LEAD-IN AREA (REWRITABLE)
VOLUME/FILE MANAGEMENT INFORMATION (REWRITABLE)
DATA AREA (REWRITABLE)
LEAD-OUT AREA (REWRITABLE)
70
DA1
DA2
DA
DA3
COMPUTER DATA AREA
AUDIO/VIDEO DATA AREA
COMPUTER DATA AREA
DA21a
DA22a
DA23a
DA24a
DA25a
DA26a
NAVIGATION DATA RTR_VMG
MOVIE VIDEO RECORDING OBJECT RTR_MOV.VRO
STILL PICTURE VIDEO RECORDING OBJECT RTR_STO.VRO
ADDITIONAL AUDIO RECORDING OBJECT FOR STILL PICTURE RTR_STA.VRO
MANUFACTURER SPECIFICATION OBJECT MSP.VOB
ANOTHER STREAM OBJECT AST.SOB
DA210a
DA210b
DA210c
DA210d
DA210e
DA210f
DA210g
RTR VIDEO MANAGER INFORMATION RTR_VMGI
MOVIE AV FILE INFORMATION TABLE M_AVFIT
STILL PICTURE AV FILE INFORMATION TABLE S_AVFIT
ORIGINAL PGC INFORMATION ORG_PGCI
USER-DEFINED PGC INFORMATION TABLE UD_PGCI
TEXT DATA MANAGER TXTDT_MG
MANUFACTURER INFORMATION TABLE MNFIT
DA2100
DA2102-1
DA2102-n
DA2104
MOVIE AV FILE INFORMATION TABLE INFORMATION M_AVFITI
MOVIE VOB STREAM INFORMATION #1 M_VOB_STI#1
.....
MOVIE VOB STREAM INFORMATION #n M_VOB_STI#n
MOVIE AV FILE INFORMATION M_AVFI
DA21040
DA21042-1
DA21042-n
DA21044-1
DA21044-n
M_AVFI GENERAL INFORMATION M_AVFI_GI
MOVIE VOB INFORMATION SEARCH POINTER #1 M_VOBI_SRP#1
.....
MOVIE VOB INFORMATION SEARCH POINTER #n M_VOBI_SRP#n
MOVIE VOB INFORMATION #1 M_VOBI#1
.....
MOVIE VOB INFORMATION #n M_VOBI#n
MOVIE VOB GENERAL INFORMATION M_VOBI_GI
TIME MAP INFORMATION TMAPI

FIG. 30

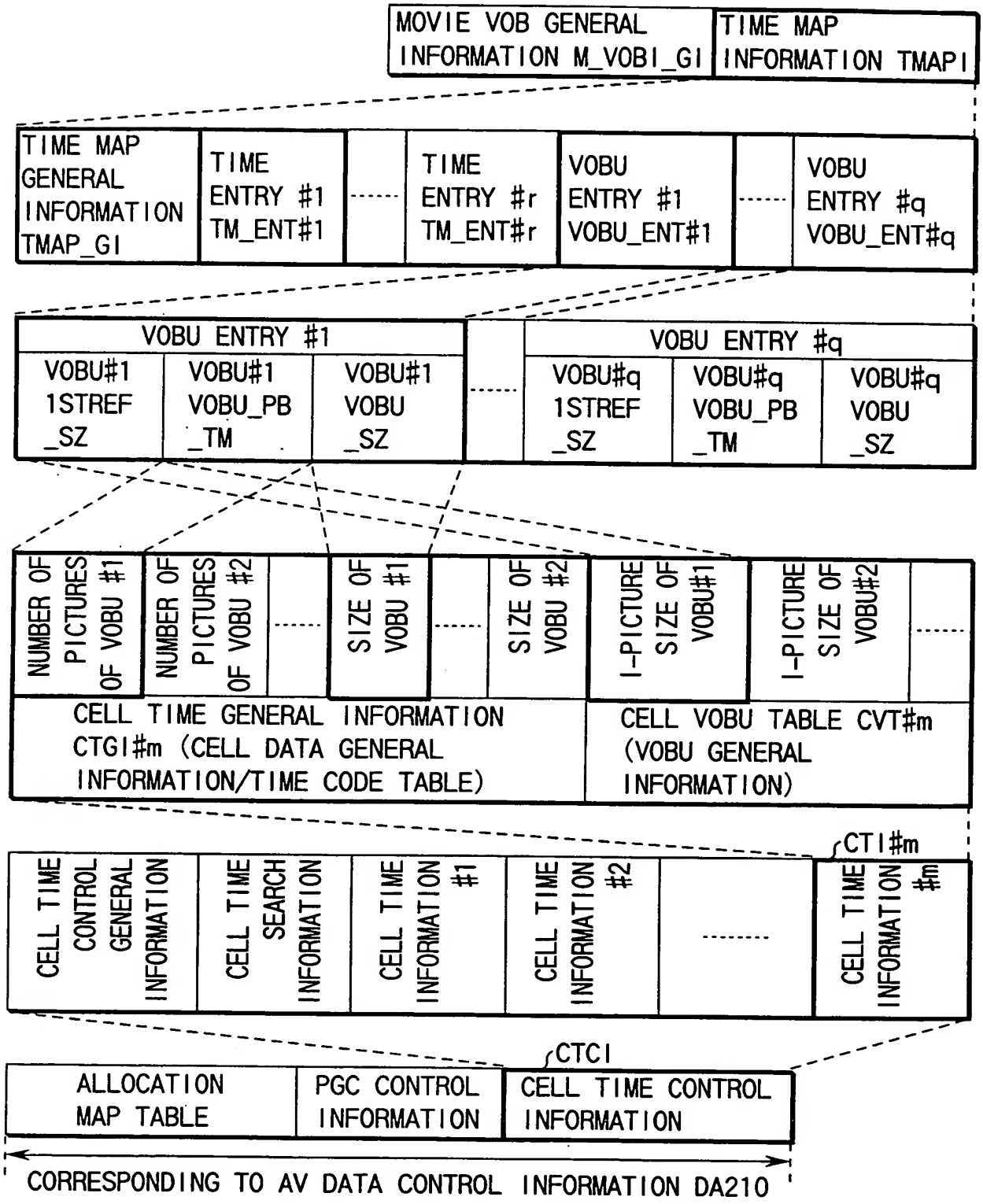

MOVIE VOB GENERAL INFORMATION M_VOBI_GI
TIME MAP INFORMATION TMAPI
TIME MAP GENERAL INFORMATION TMAP_GI
TIME ENTRY #1 TM_ENT#1
TIME ENTRY #r TM_ENT#r
VOBU ENTRY #1 VOBU_ENT#1
VOBU ENTRY #q VOBU_ENT#q
VOBU ENTRY #1
VOBU#1 1STREF _SZ
VOBU#1 VOBU_PB _TM
VOBU#1 VOBU _SZ
VOBU ENTRY #q
VOBU#q 1STREF _SZ
VOBU#q VOBU_PB _TM
VOBU#q VOBU _SZ
NUMBER OF PICTURES OF VOBU #1
NUMBER OF PICTURES OF VOBU #2
SIZE OF VOBU #1
SIZE OF VOBU #2
I-PICTURE SIZE OF VOBU#1
I-PICTURE SIZE OF VOBU#2
CELL TIME GENERAL INFORMATION CTGI#m (CELL DATA GENERAL INFORMATION/TIME CODE TABLE)
CELL VOBU TABLE CVT#m (VOBU GENERAL INFORMATION)
CTI#m
CELL TIME CONTROL GENERAL INFORMATION
CELL TIME SEARCH INFORMATION
CELL TIME INFORMATION #1
CELL TIME INFORMATION #2
CELL TIME INFORMATION #m
CTCI
ALLOCATION MAP TABLE
PGC CONTROL INFORMATION
CELL TIME CONTROL INFORMATION
CORRESPONDING TO AV DATA CONTROL INFORMATION DA210

FIG. 31

TIME MAP GENERAL INFORMATION TMAP_GI

RELATIVE BYTE POSITION	FIELD NAME	CONTENTS	NUMBER OF BYTES
0-1	TM_FNT_Ns	NUMBER OF TIME ENTRIES	2
2-3	VOBU_ENT_Ns	NUMBER OF VOBU ENTRIES	2
4-5	TM_OFS	TIME OFFSET	2
6-9	ADR_OFS	ADDRESS OFFSET	4

FIG. 32

TIME ENTRY TM_ENT

RELATIVE BYTE POSITION	FIELD NAME	CONTENTS	NUMBER OF BYTES
0-1	VOBU_ENTN	VOBU ENTRY NUMBER	2
2	TM_DIFF	TIME DIFFERENCE	1
3-6	VOBU_ADR	TARGET VOBU ADDRESS	4

FIG. 33

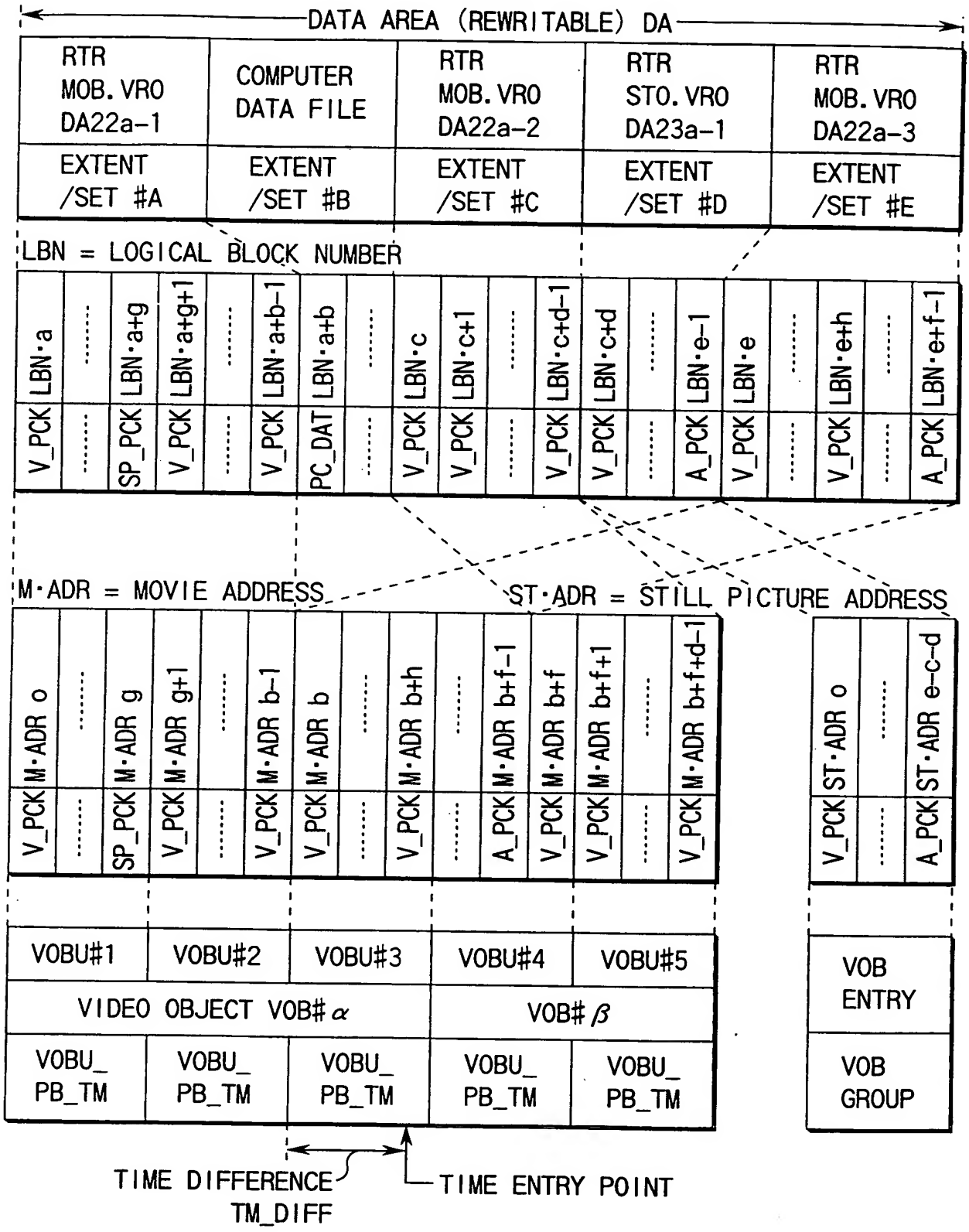

DATA AREA (REWRITABLE) DA
RTR MOB. VRO DA22a-1
COMPUTER DATA FILE
RTR MOB. VRO DA22a-2
RTR STO. VRO DA23a-1
RTR MOB. VRO DA22a-3
EXTENT /SET #A
EXTENT /SET #B
EXTENT /SET #C
EXTENT /SET #D
EXTENT /SET #E
LBN = LOGICAL BLOCK NUMBER
M·ADR = MOVIE ADDRESS
ST·ADR = STILL PICTURE ADDRESS
VOBU#1
VOBU#2
VOBU#3
VOBU#4
VOBU#5
VIDEO OBJECT VOB# α
VOB# β
VOBU_ PB_TM
VOB ENTRY
VOB GROUP
TIME DIFFERENCE TM_DIFF
TIME ENTRY POINT

FIG. 34

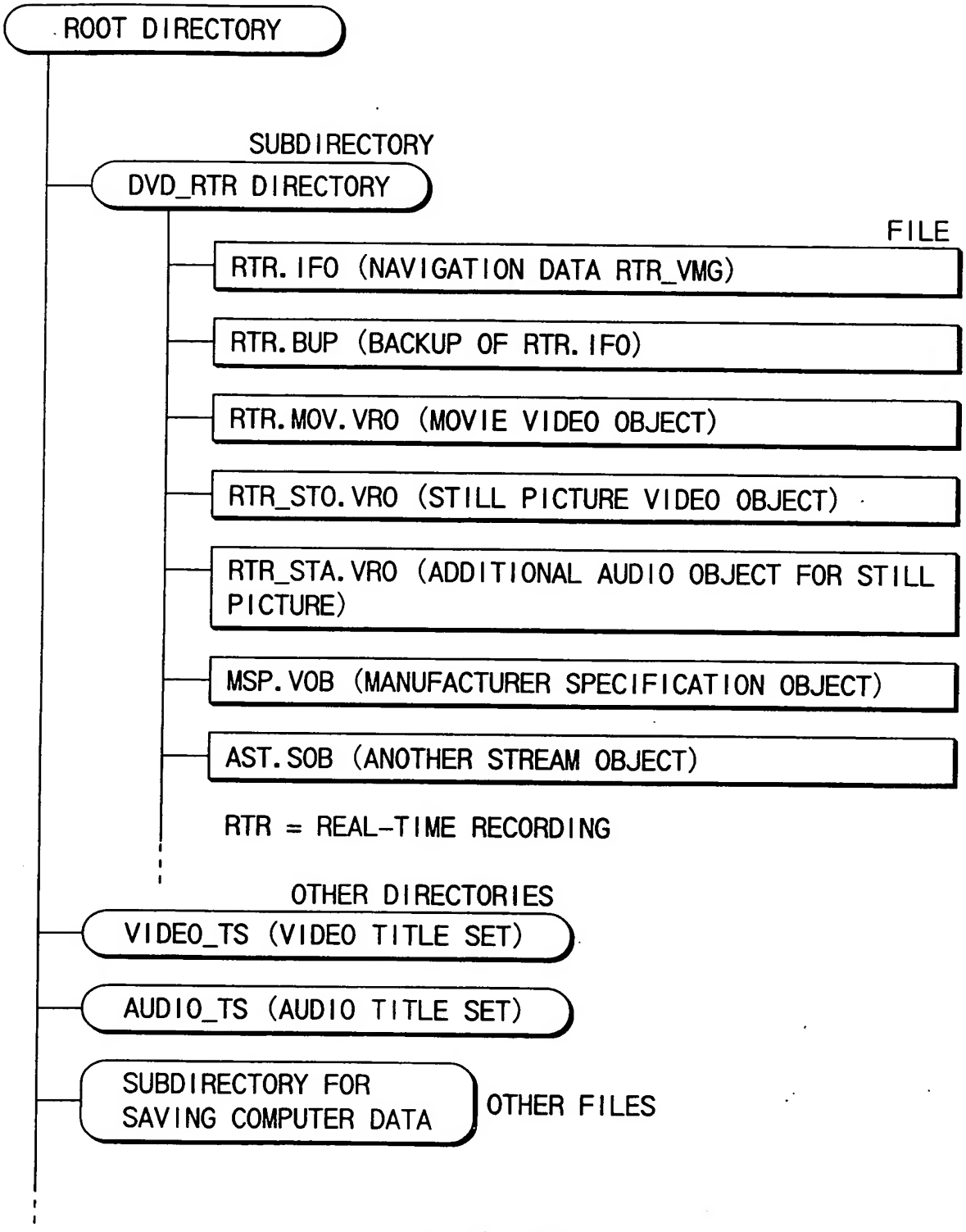
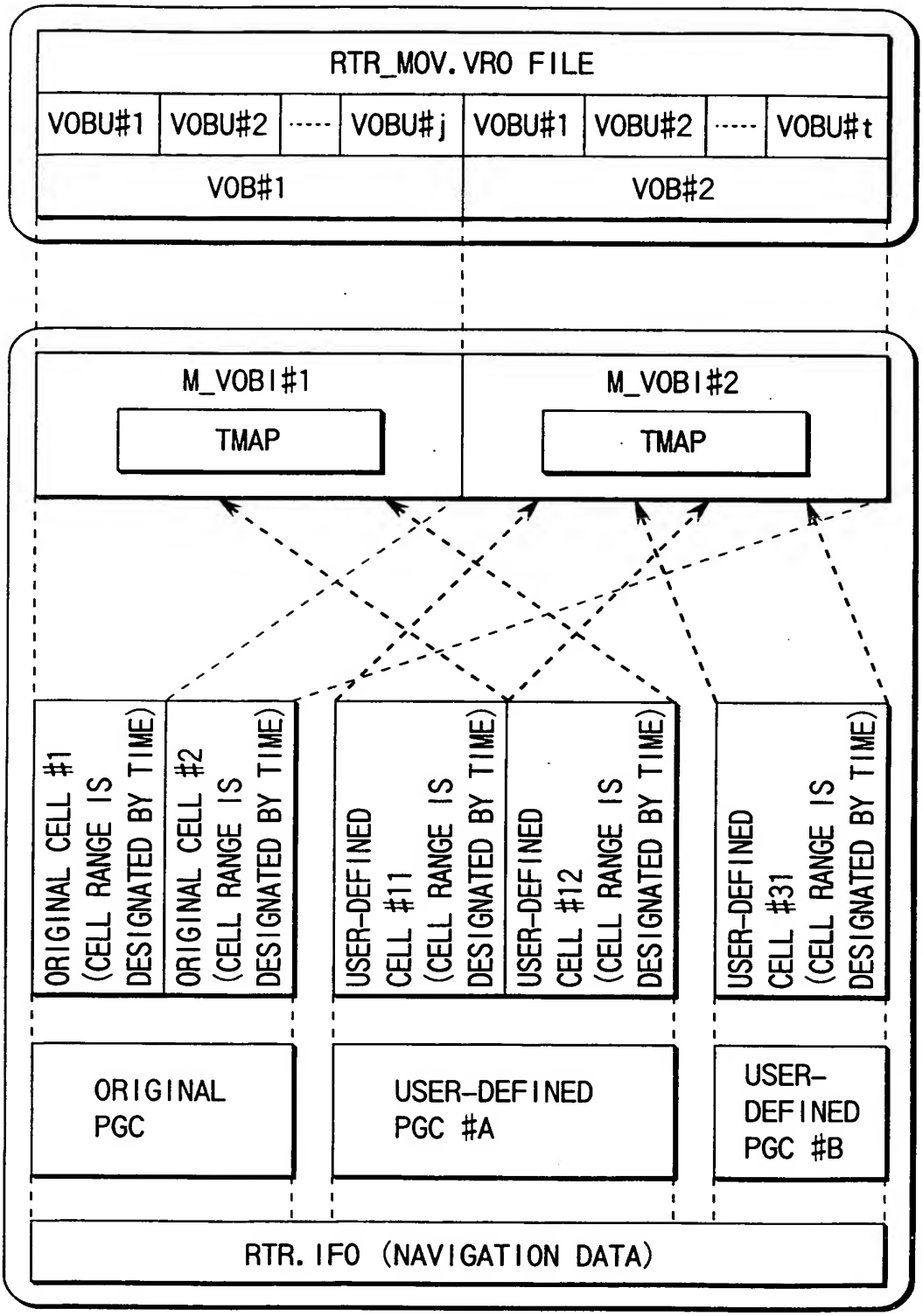

ROOT DIRECTORY
SUBDIRECTORY
DVD_RTR DIRECTORY
FILE
RTR.IFO (NAVIGATION DATA RTR_VMG)
RTR.BUP (BACKUP OF RTR.IFO)
RTR.MOV.VRO (MOVIE VIDEO OBJECT)
RTR_STO.VRO (STILL PICTURE VIDEO OBJECT)
RTR_STA.VRO (ADDITIONAL AUDIO OBJECT FOR STILL PICTURE)
MSP.VOB (MANUFACTURER SPECIFICATION OBJECT)
AST.SOB (ANOTHER STREAM OBJECT)
RTR = REAL-TIME RECORDING
OTHER DIRECTORIES
VIDEO_TS (VIDEO TITLE SET)
AUDIO_TS (AUDIO TITLE SET)
SUBDIRECTORY FOR SAVING COMPUTER DATA
OTHER FILES

FIG. 35


RTR_MOV.VRO FILE
VOBU#1
VOBU#2

VOBU#j
VOBU#1
VOBU#2

VOBU#t
VOB#1
VOB#2
M_VOBI#1
TMAP
M_VOBI#2
TMAP
ORIGINAL CELL #1 (CELL RANGE IS DESIGNATED BY TIME)
ORIGINAL CELL #2 (CELL RANGE IS DESIGNATED BY TIME)
USER-DEFINED CELL #11 (CELL RANGE IS DESIGNATED BY TIME)
USER-DEFINED CELL #12 (CELL RANGE IS DESIGNATED BY TIME)
USER-DEFINED CELL #31 (CELL RANGE IS DESIGNATED BY TIME)
ORIGINAL PGC
USER-DEFINED PGC #A
USER-DEFINED PGC #B
RTR.IFO (NAVIGATION DATA)

FIG. 36

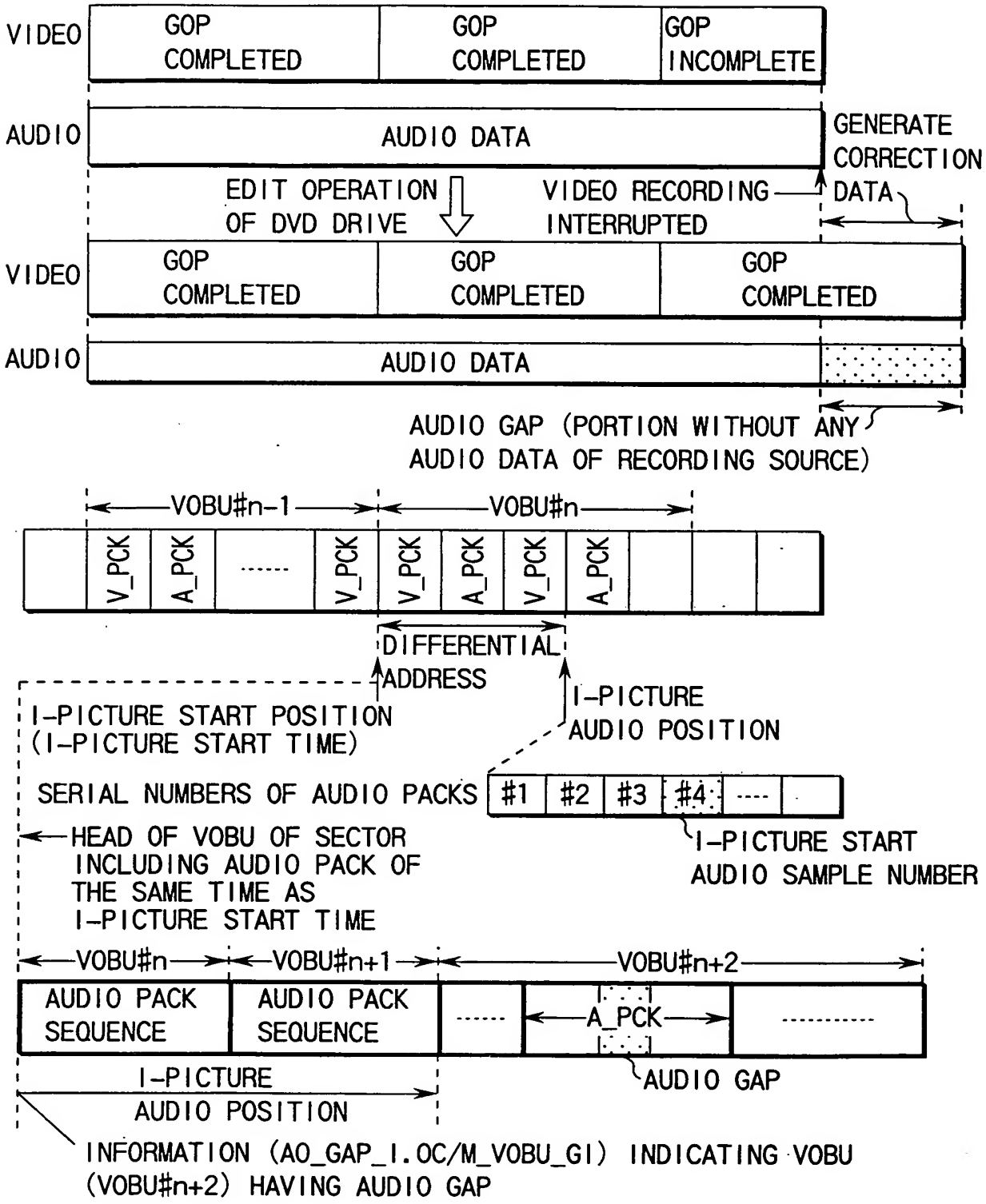

VIDEO
GOP COMPLETED
GOP COMPLETED
GOP INCOMPLETE
AUDIO
AUDIO DATA
GENERATE CORRECTION DATA
EDIT OPERATION OF DVD DRIVE
VIDEO RECORDING INTERRUPTED
VIDEO
GOP COMPLETED
GOP COMPLETED
GOP COMPLETED
AUDIO
AUDIO DATA
AUDIO GAP (PORTION WITHOUT ANY AUDIO DATA OF RECORDING SOURCE)
VOBU#n-1
VOBU#n
V_PCK
A_PCK
V_PCK
V_PCK
A_PCK
V_PCK
A_PCK
DIFFERENTIAL ADDRESS
I-PICTURE START POSITION (I-PICTURE START TIME)
I-PICTURE AUDIO POSITION
SERIAL NUMBERS OF AUDIO PACKS
#1
#2
#3
#4
I-PICTURE START AUDIO SAMPLE NUMBER
HEAD OF VOBU OF SECTOR INCLUDING AUDIO PACK OF THE SAME TIME AS I-PICTURE START TIME
VOBU#n
VOBU#n+1
VOBU#n+2
AUDIO PACK SEQUENCE
AUDIO PACK SEQUENCE
A_PCK
AUDIO GAP
I-PICTURE AUDIO POSITION
INFORMATION (AO_GAP_I.OC/M_VOBU_GI) INDICATING VOBU (VOBU#n+2) HAVING AUDIO GAP

FIG. 37